

Fig. 1

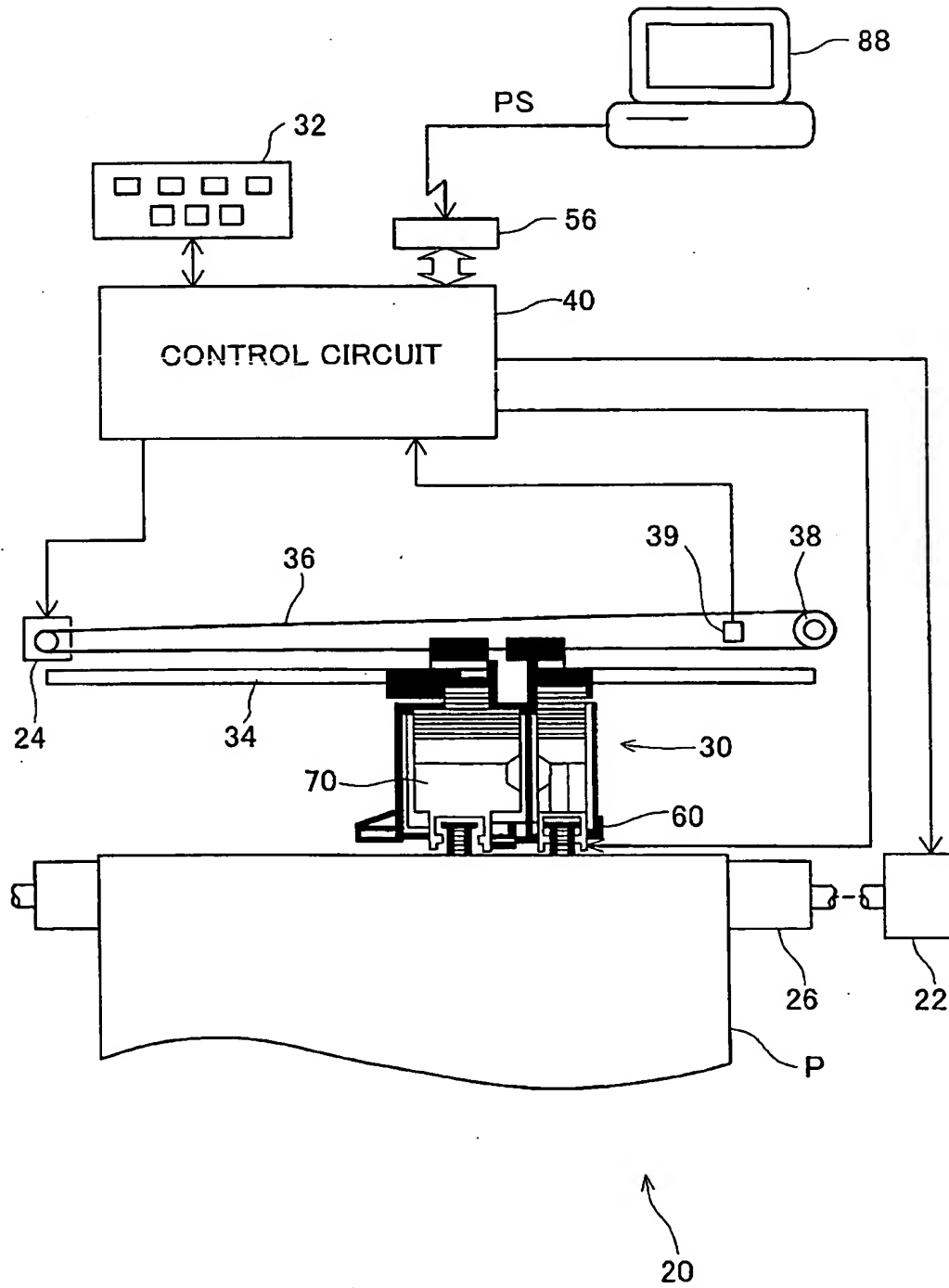


Fig. 2

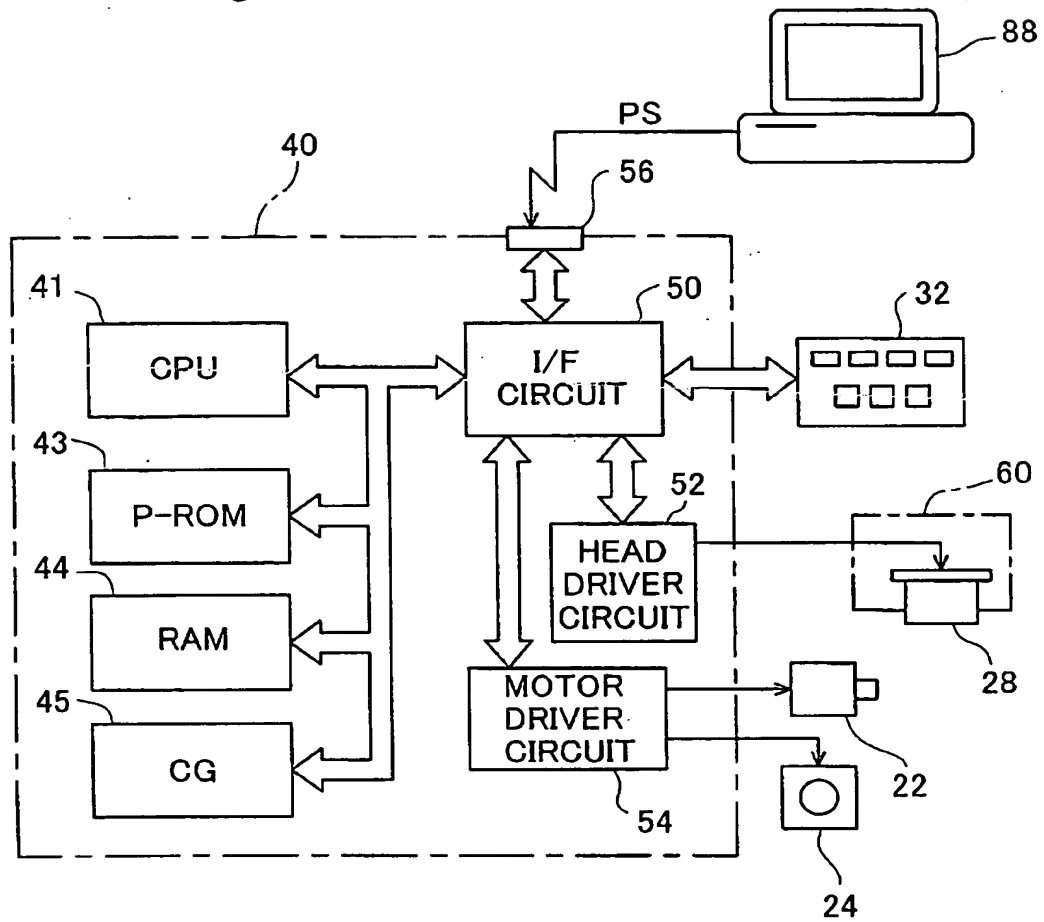


Fig. 3

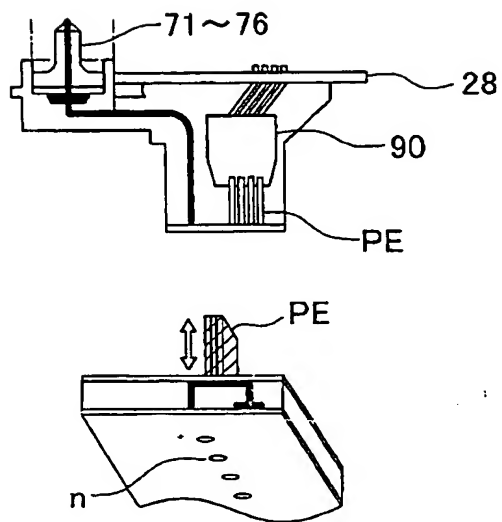


Fig. 4A

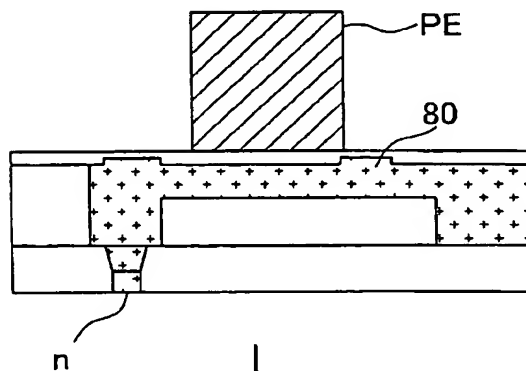


Fig. 4B

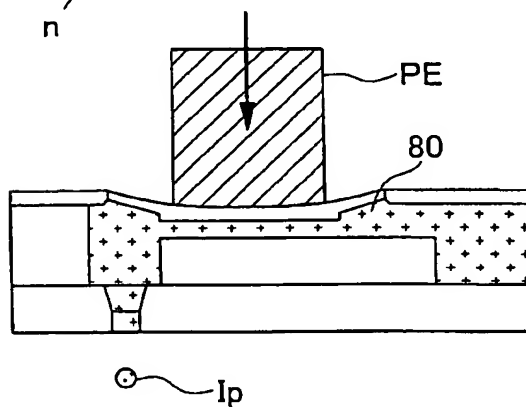
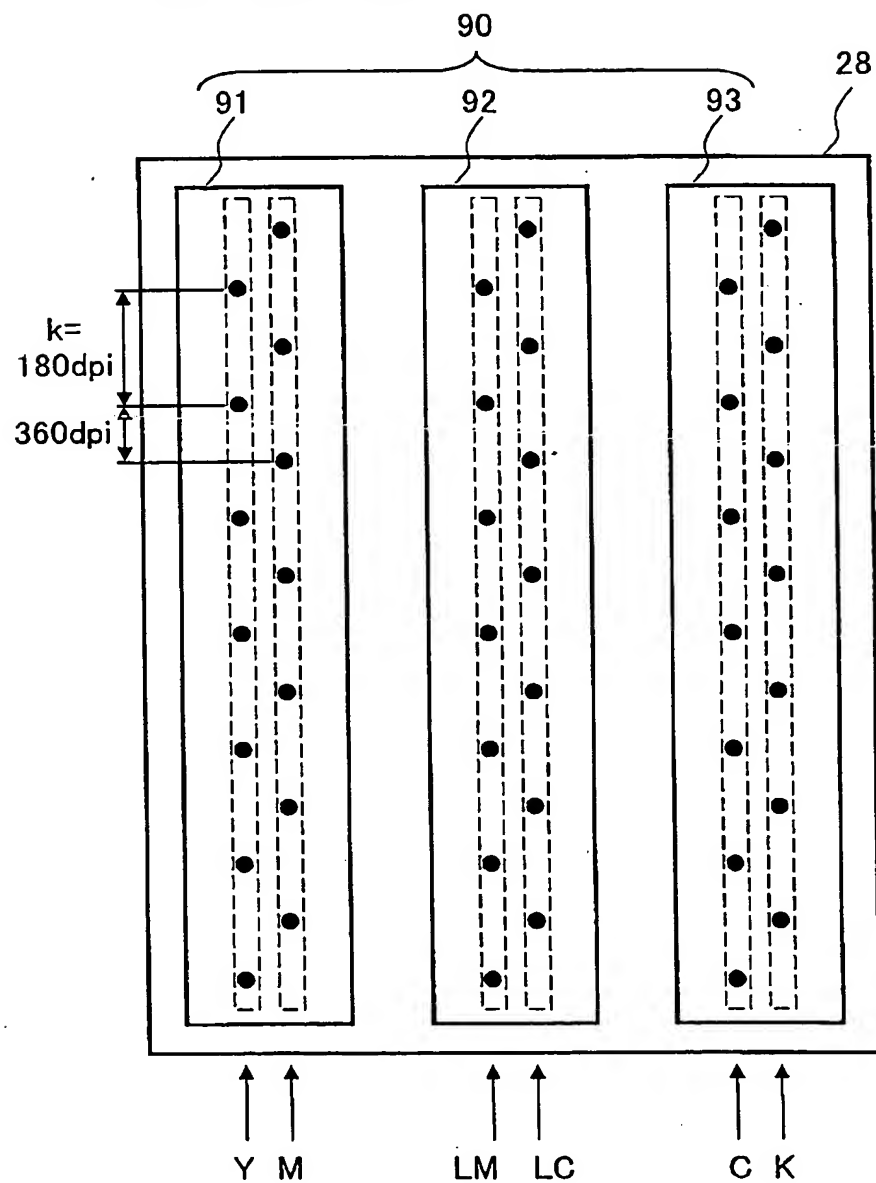


Fig. 5

FIRST EMBODIMENT



PAPER FEED DIRECTION
(SUB-SCANNING DIRECTION)

MAIN SCANNING DIRECTION

Fig. 6

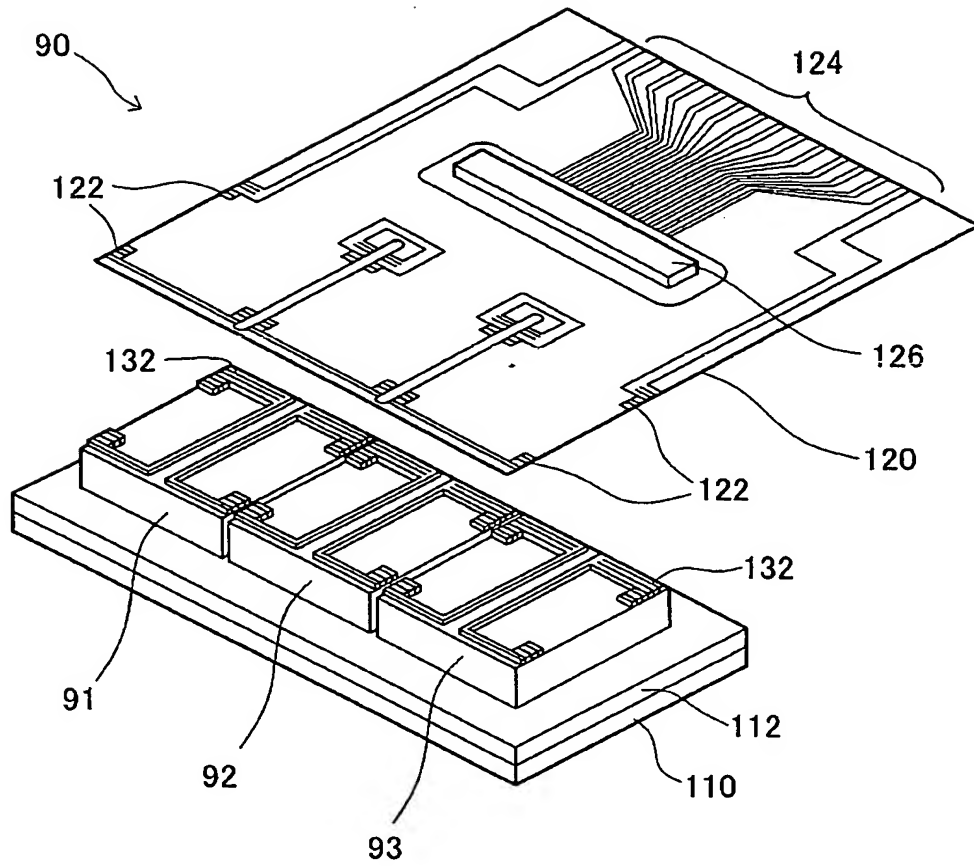


Fig. 7

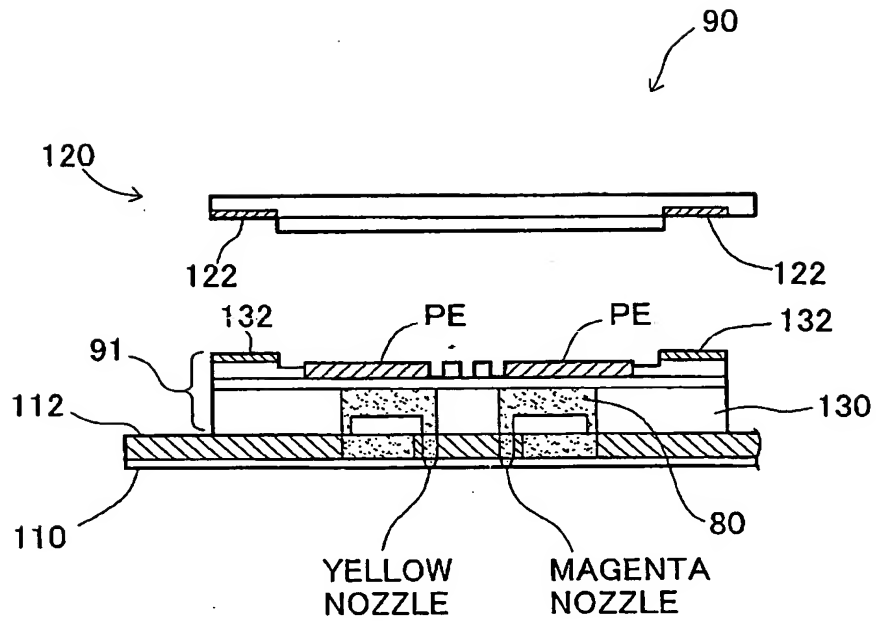


Fig. 8

INK PASSAGE ARRANGEMENT OF FIRST EMBODIMENT

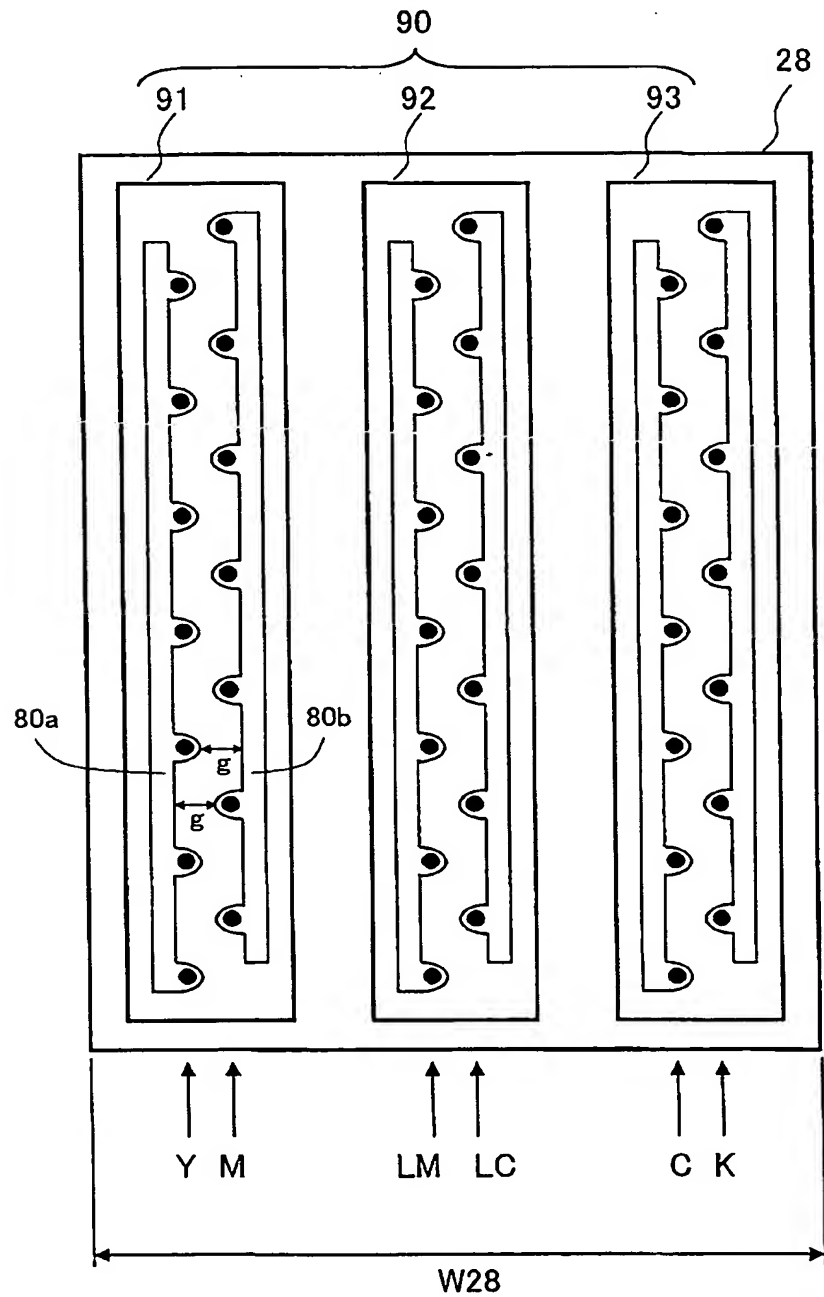
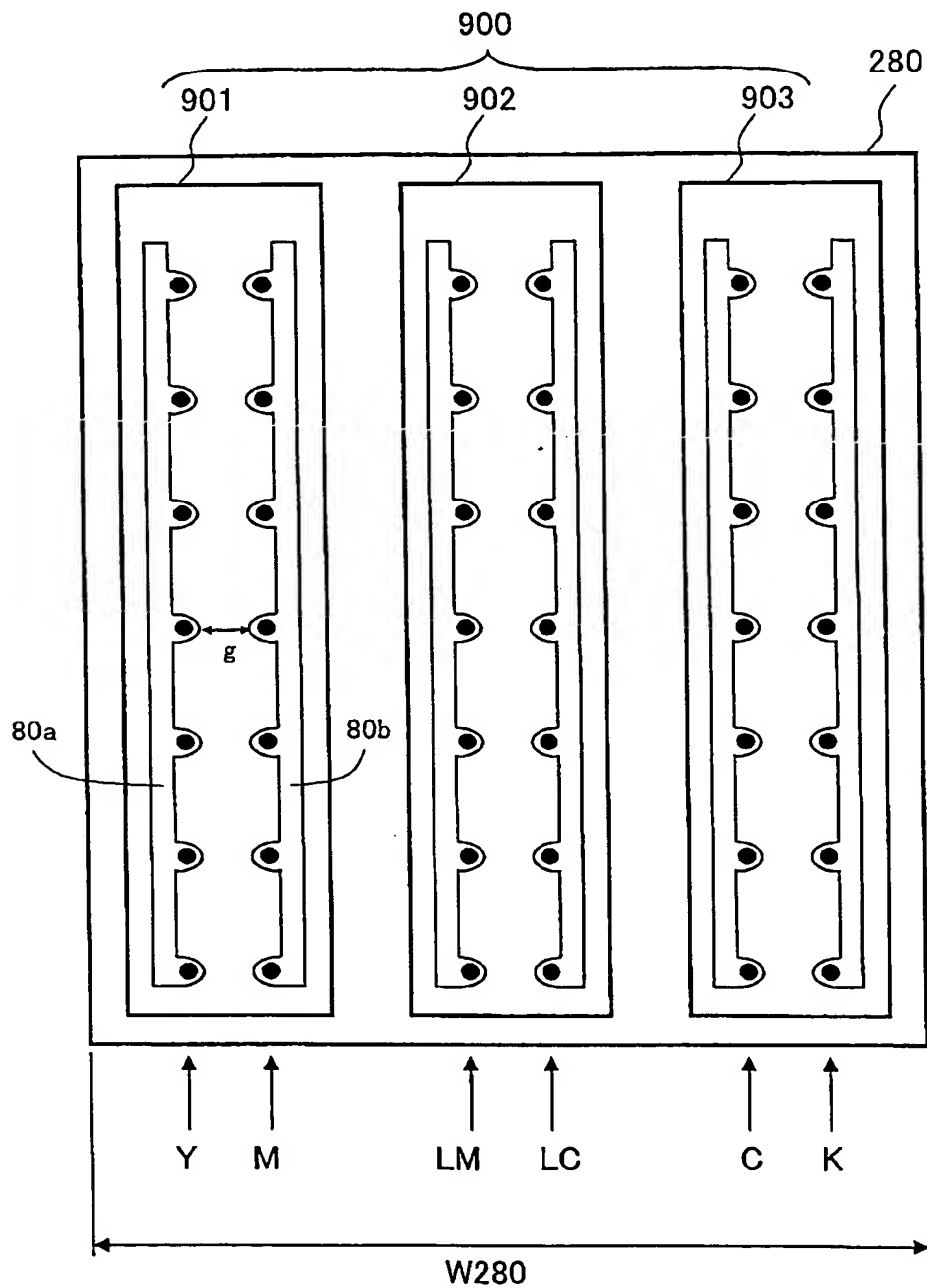


Fig. 9

INK PASSAGE ARRANGEMENT OF COMPARATIVE EXAMPLE



(W28 < W280)

Fig. 10

SECOND EMBODIMENT

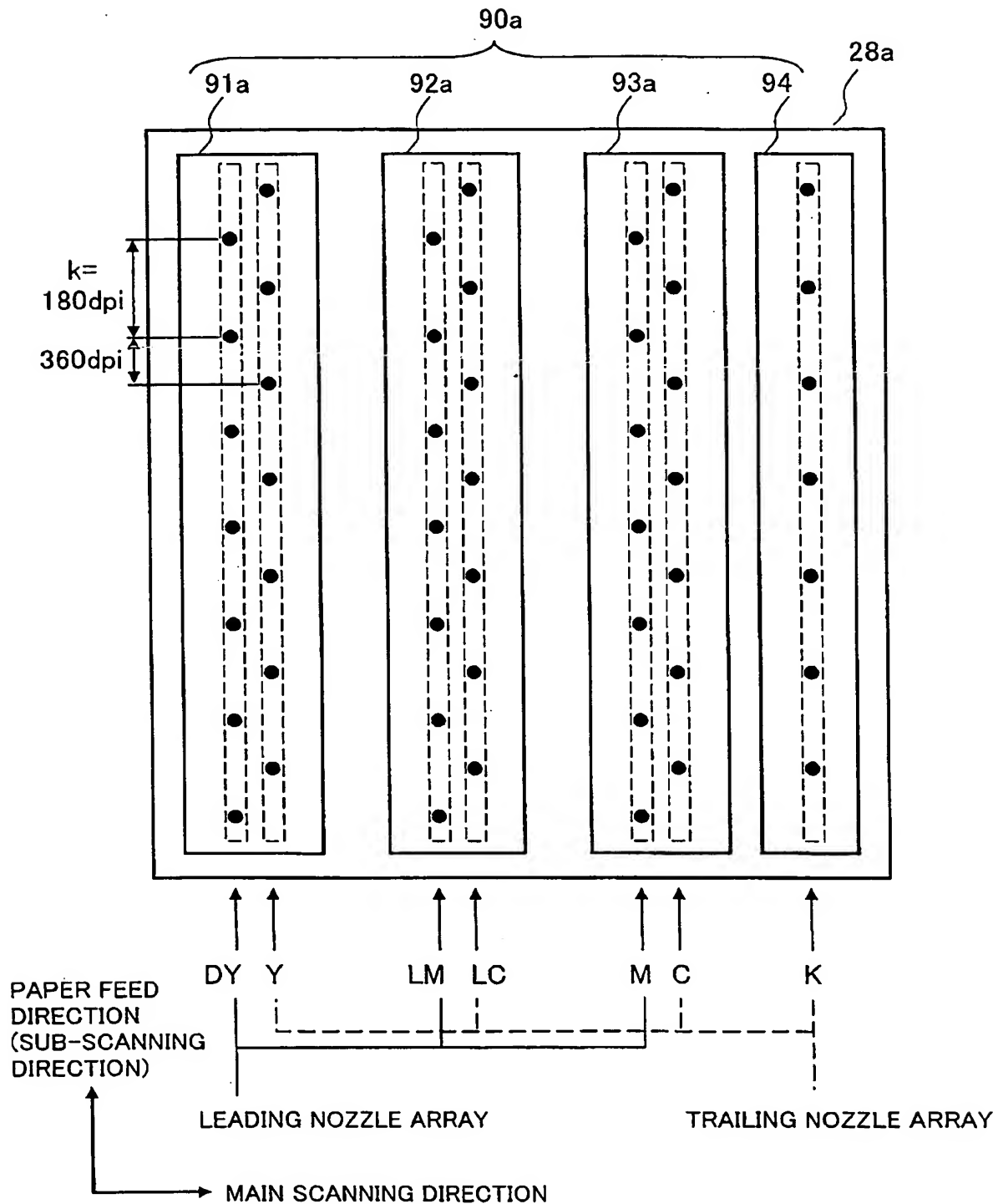


Fig. 11A

ACTUAL NOZZLE ARRAYS

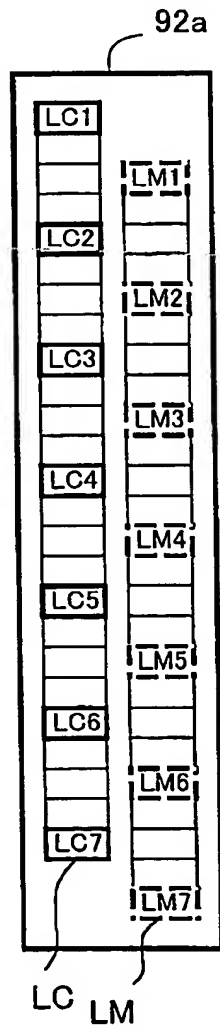


Fig. 11B

EQUIVALENT NOZZLE ARRAY

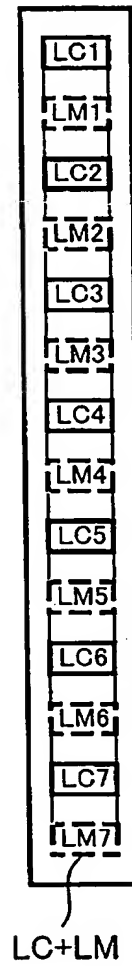


Fig. 12

BI-DIRECTIONAL PRINTING WITH PRINT HEAD
OF SECOND EMBODIMENT

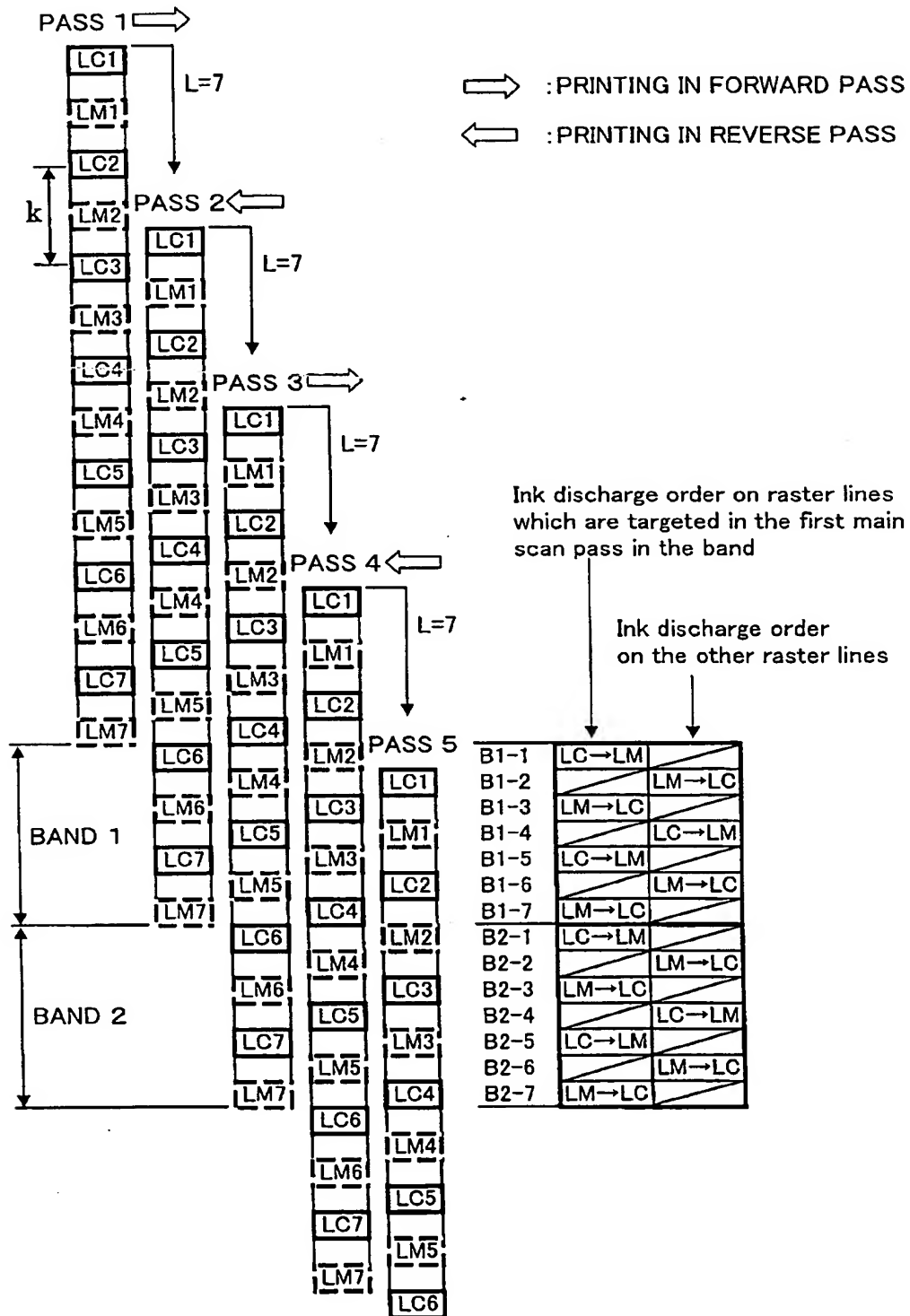


Fig. 13

BI-DIRECTIONAL PRINTING WITH PRINT HEAD
OF COMPARATIVE EXAMPLE

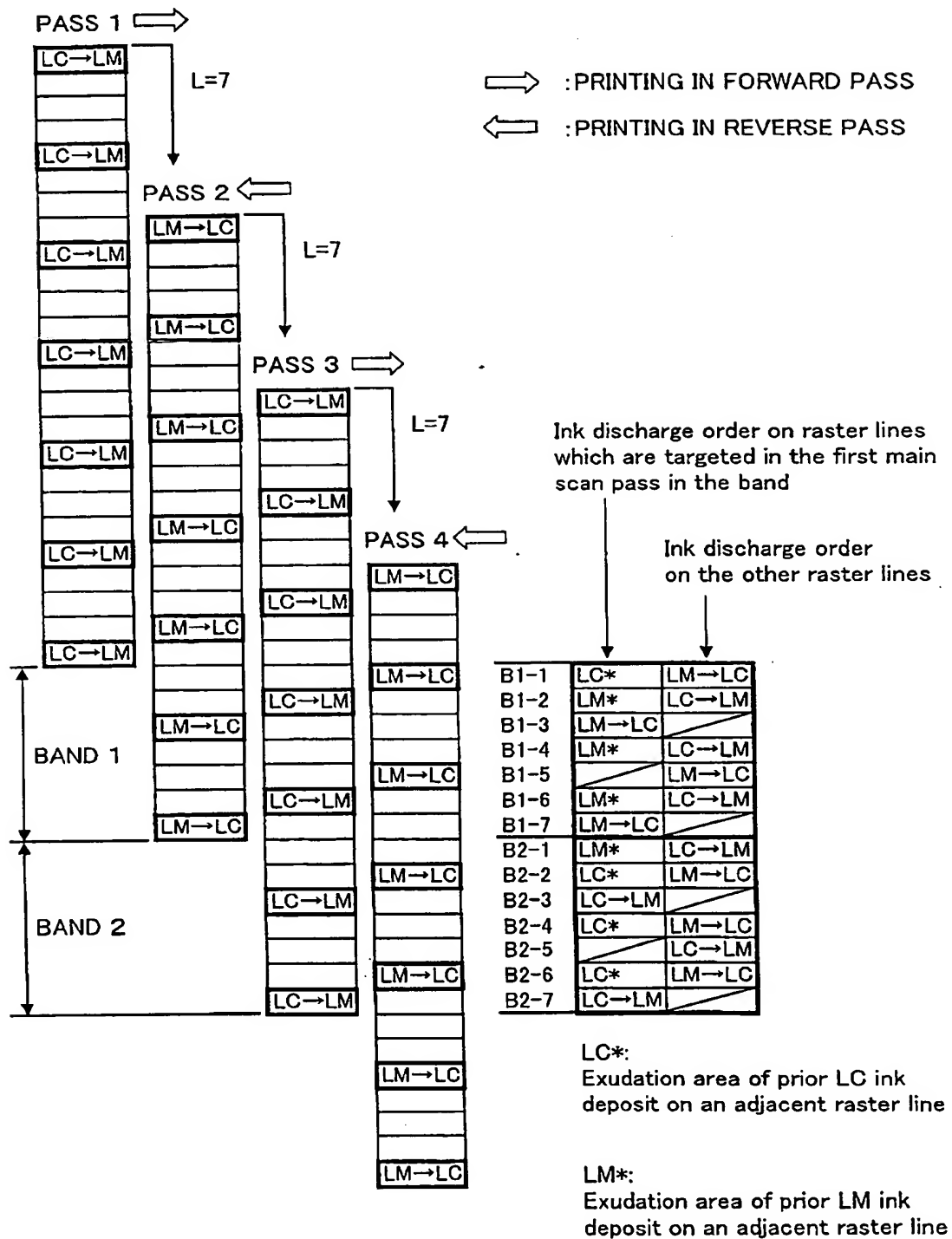


Fig. 14

THIRD EMBODIMENT

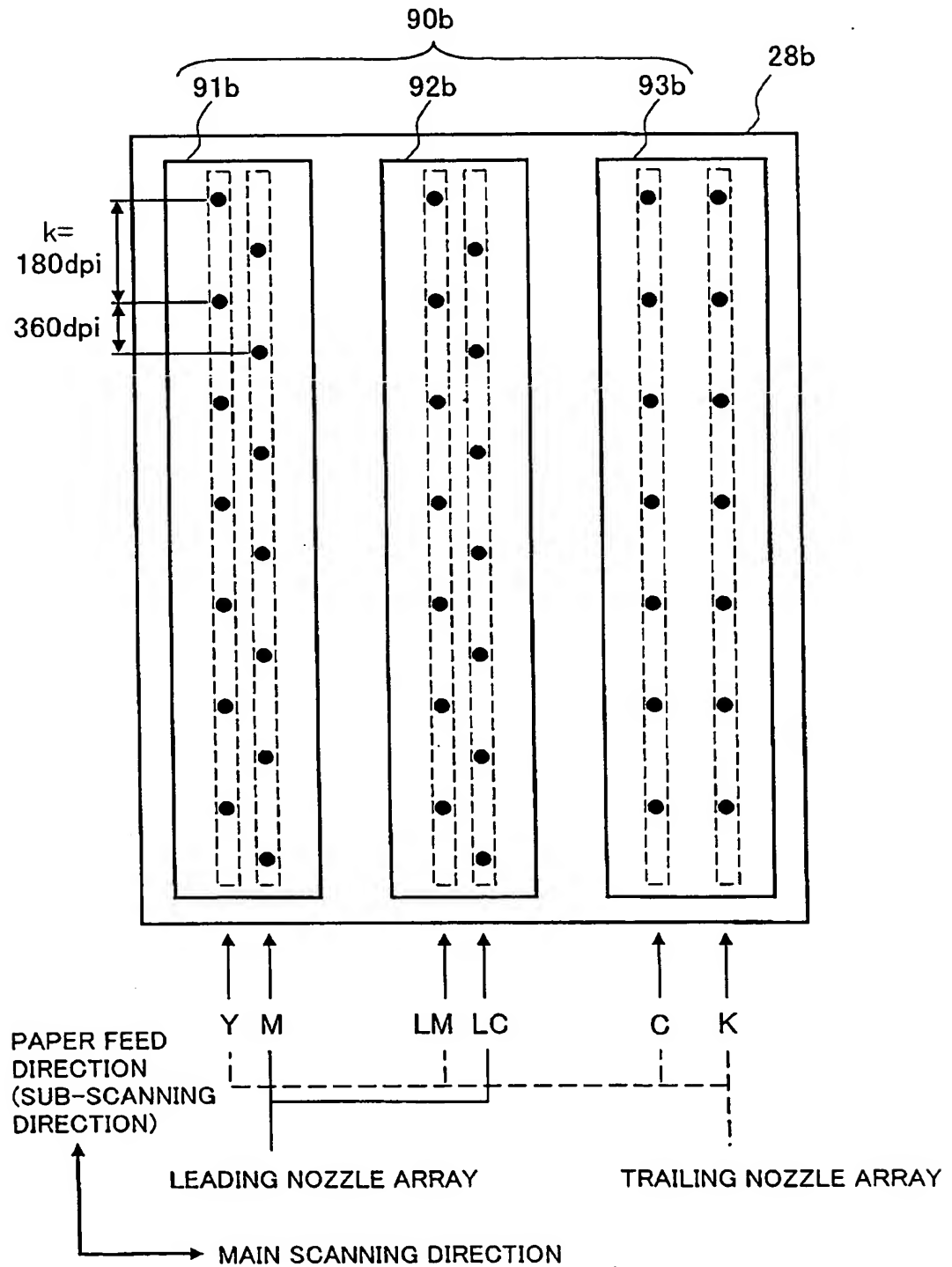


Fig. 15

DIVISION OF PRINTING MODE

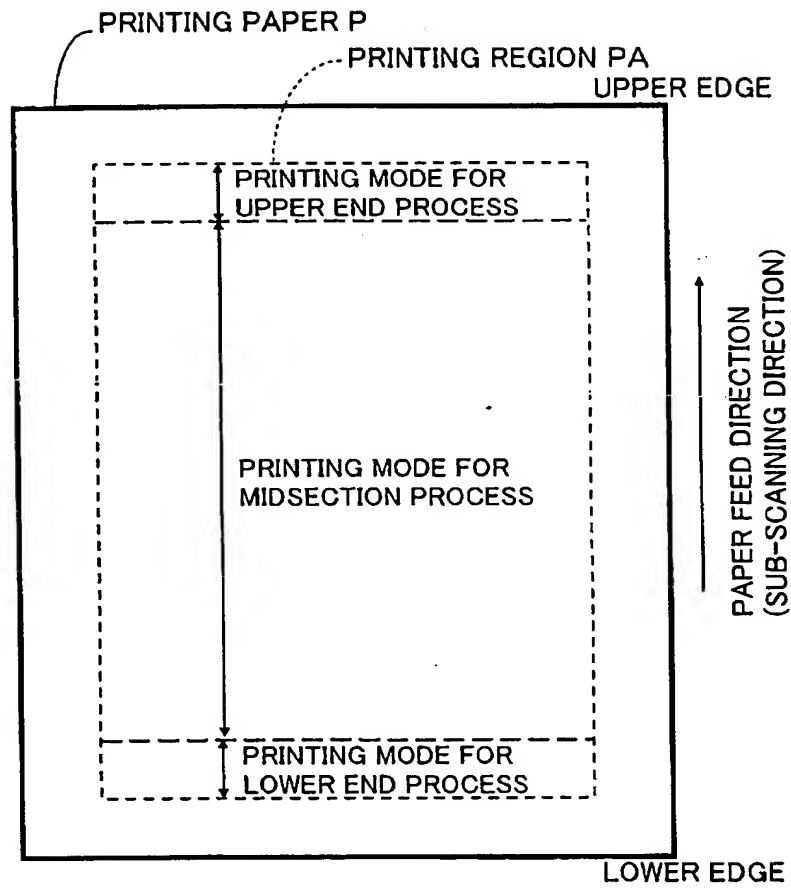


Fig. 16

FIRST EXAMPLE OF MIDSECTION PROCESS

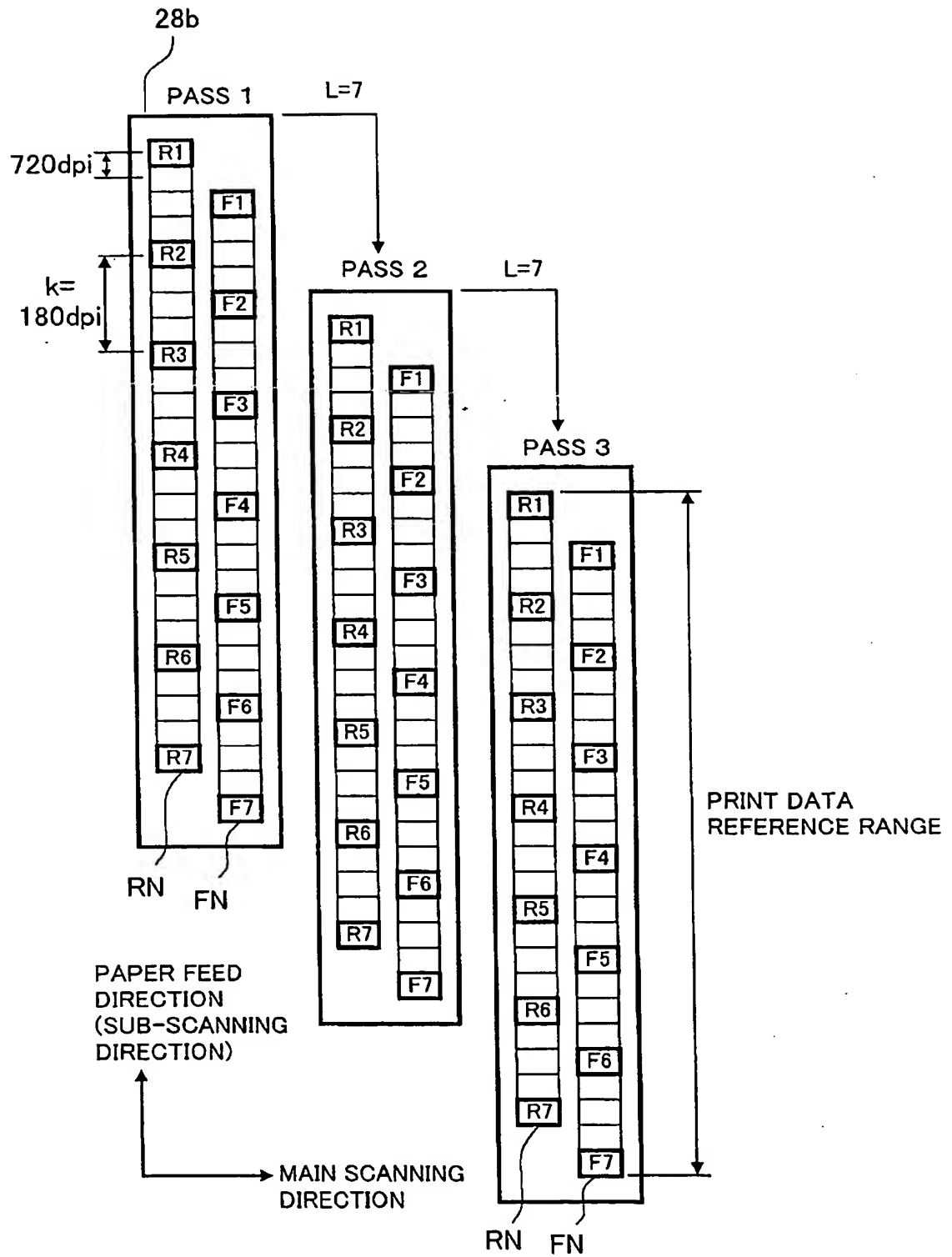


Fig. 17A

TRAILING
NOZZLE ARRAY RN

Fig. 17B

LEADING
NOZZLE ARRAY FN

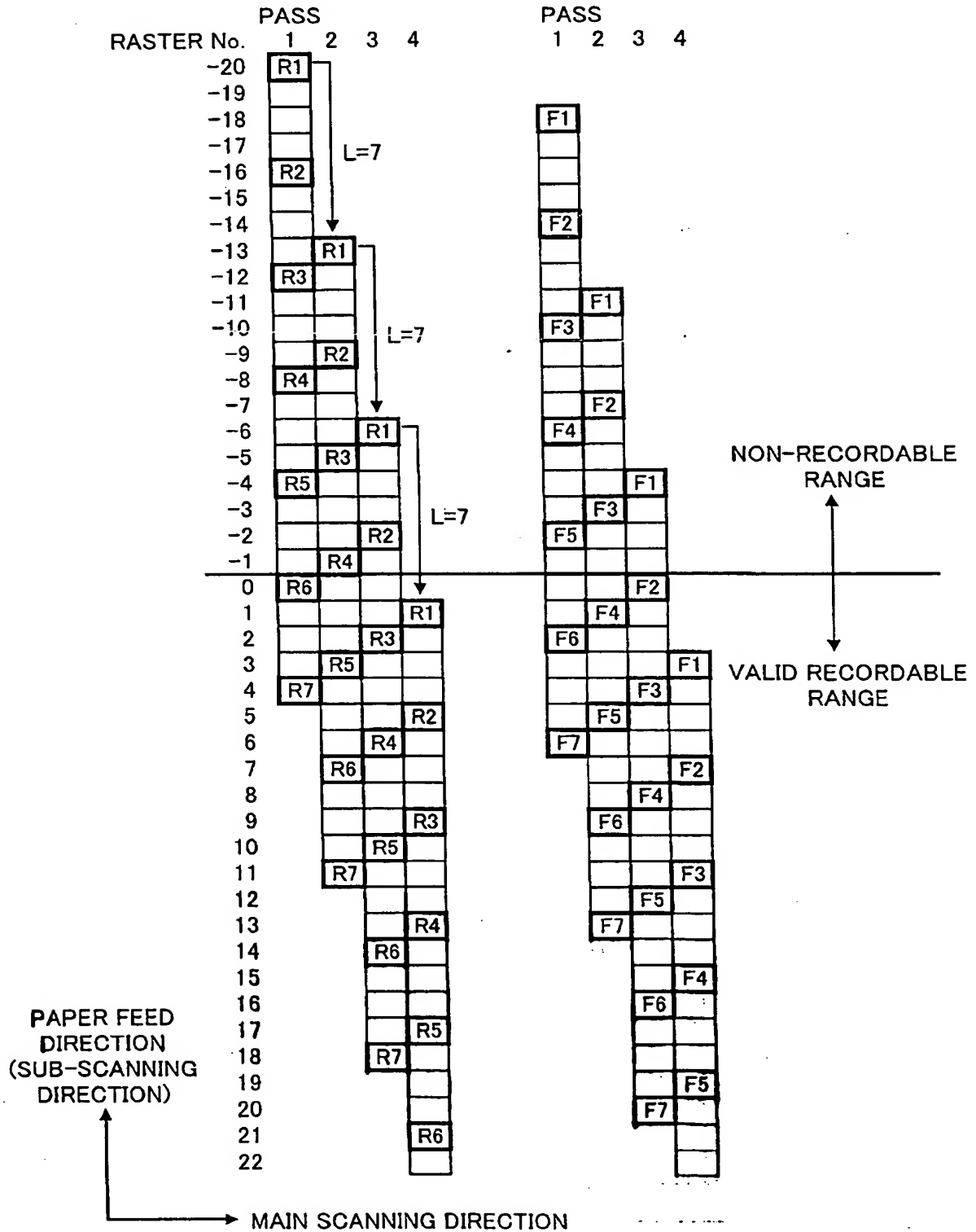


Fig. 18A

TRAILING
NOZZLE ARRAY RN

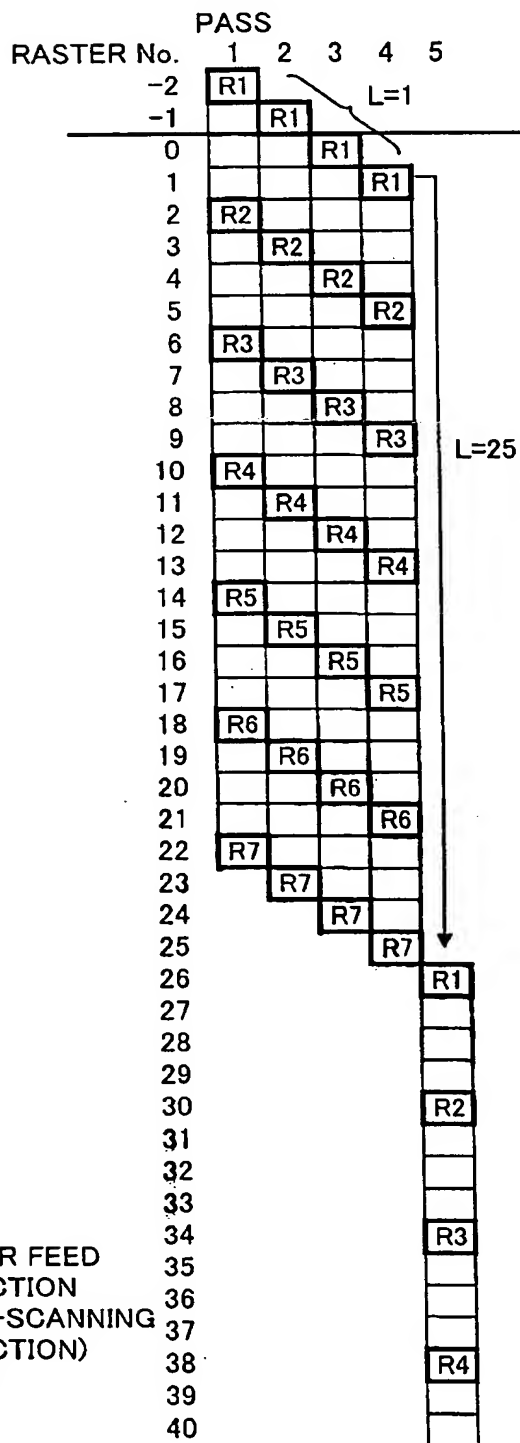


Fig. 18B

LEADING
NOZZLE ARRAY FN

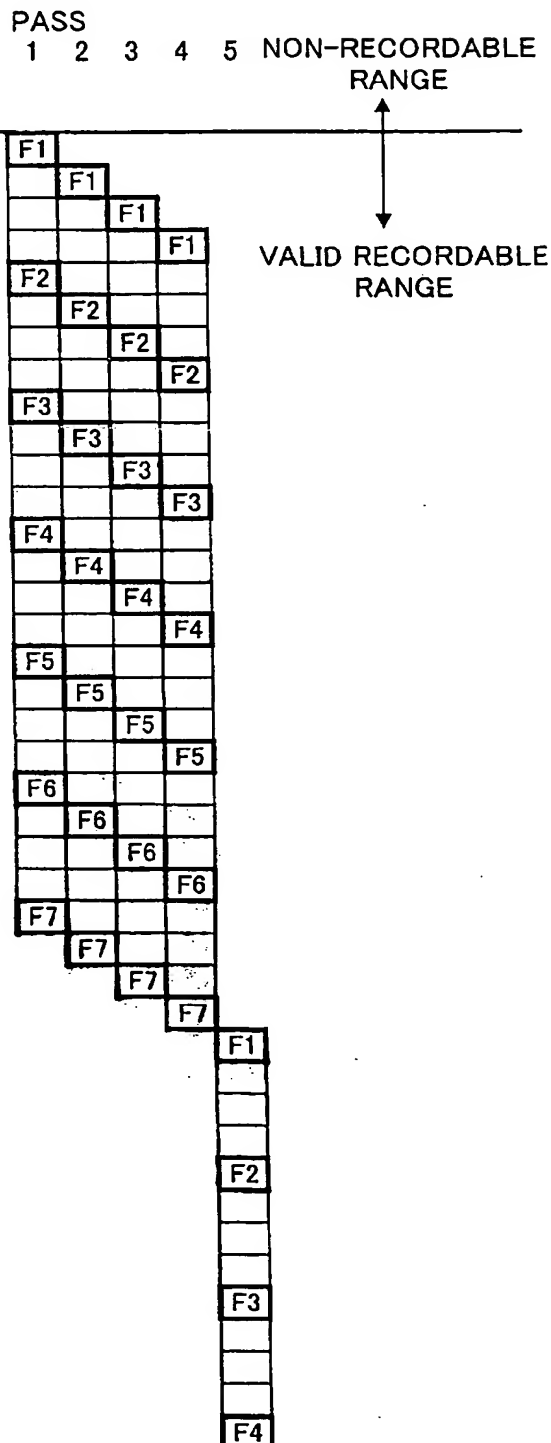
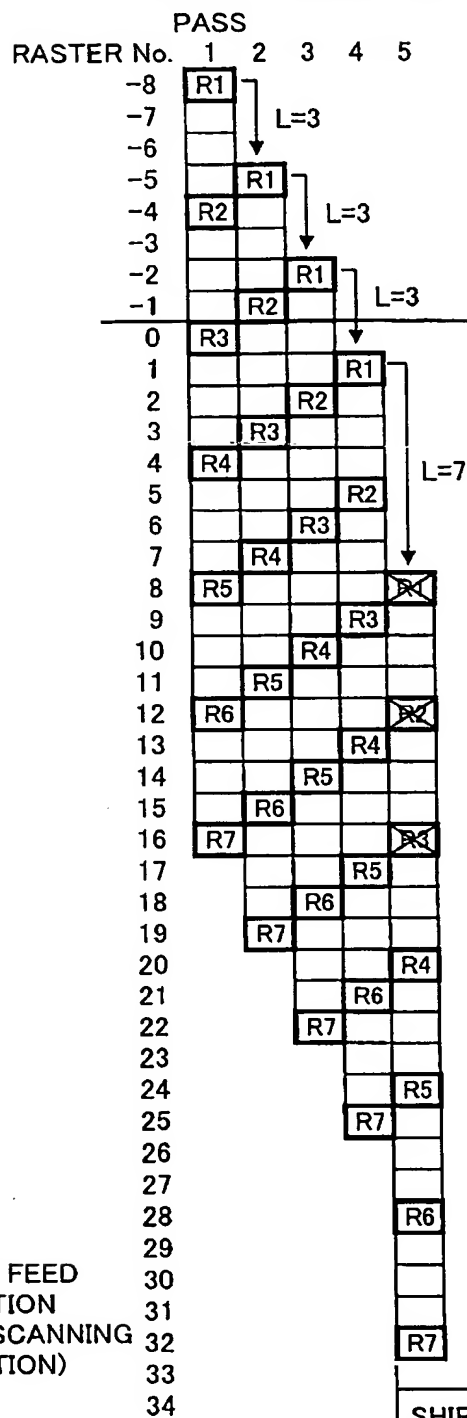


Fig. 19A

TRAILING
NOZZLE ARRAY RN



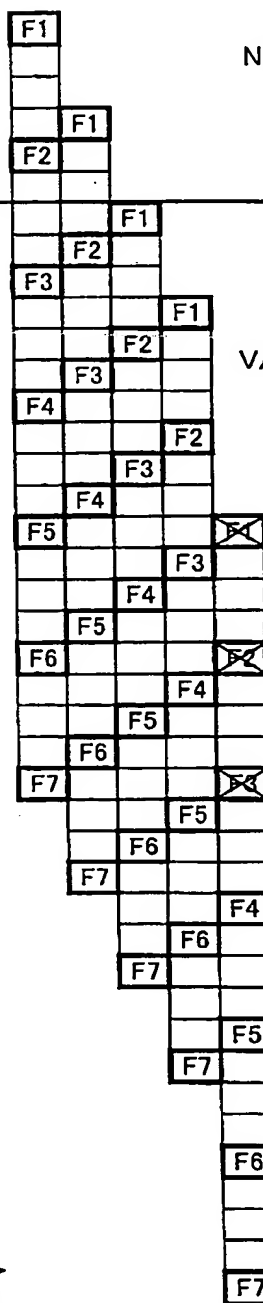
PAPER FEED
DIRECTION
(SUB-SCANNING
DIRECTION)

MAIN SCANNING
DIRECTION

Fig. 19B

LEADING
NOZZLE ARRAY FN

PASS
1 2 3 4 5



NON-RECORDABLE
RANGE

UPPER END LINE

VALID RECORDABLE
RANGE

SHIFT TO
MIDSECTION PROCESS

✗ : NOT IN USE

SHIFT TO
MIDSECTION PROCESS

Fig. 20A

TRAILING
NOZZLE ARRAY RN

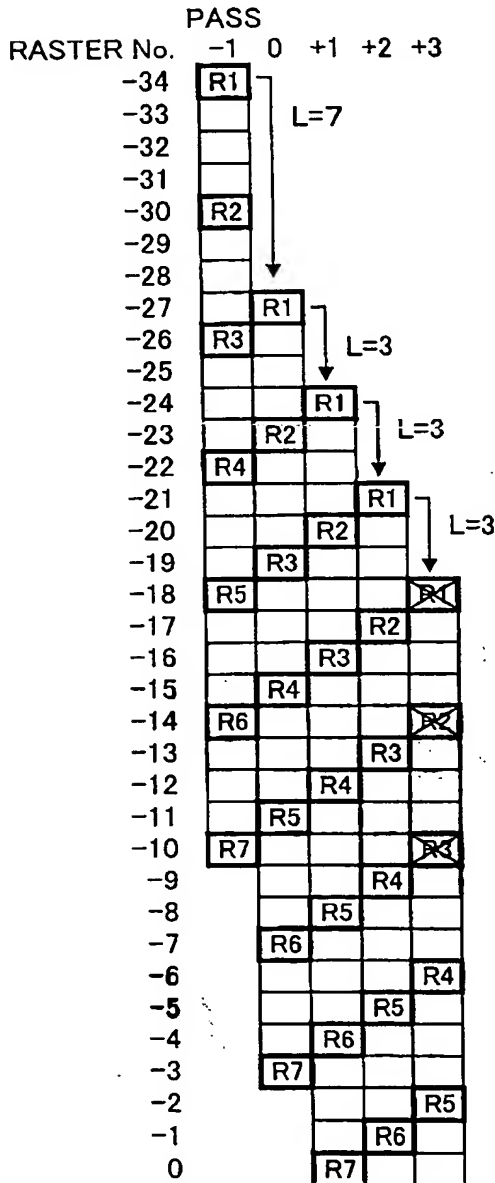
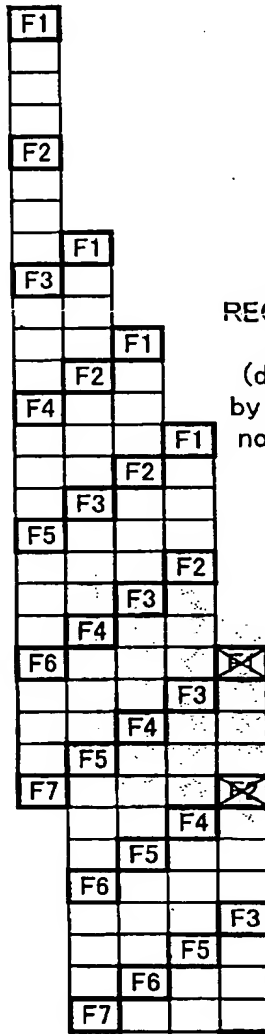


Fig. 20B

LEADING
NOZZLE ARRAY FN

PASS
-1 0 +1 +2 +3



VALID
RECORDABLE
RANGE
(determined
by the leading
nozzle array)

LOWER END LINE

PAPER FEED
DIRECTION
(SUB-SCANNING
DIRECTION)

SHIFT TO LOWER END
PROCESS

⊗ : NOT IN USE

MAIN SCANNING DIRECTION

SHIFT TO LOWER END PROCESS